

28 February 2022

To whom it may concern,

iBeta Quality Assurance conducted Presentation Attack Detection (PAD) testing in accordance with ISO/IEC 30107-3. iBeta is accredited by NIST/NVLAP (NVLAP Lab Code: 200962) to test and provide results to this PAD standard (<u>certificate and scope</u> may be downloaded from the NVLAP website).

This testing was conducted with the Kasikorn Labs KBTG Face Liveness (iOS) SDK v3.0.0 active liveness application. Testing was conducted from 07 February to 15 February 2022 on a single smartphone (an iPhone 12 Pro with iOS 14.2.0).

Testing was conducted in accordance with the contract for a level of spoofing technique that only utilized simple, readily available methods to create artefacts of the genuine biometric for use in the presentation attack. The subjects for the test effort were cooperative – meaning that they were willing and able to provide any and all biometric samples, including high quality photos and videos of their likeness. The test time for each PAD test per PAI was limited to eight hours. This is considered a Level 1 PAD test effort (first of three levels).

The test method was to apply 1 bona fide subject presentation that alternated with 3 artefact presentations such that each species consisted of 150 Presentation Attacks (PAs) and 50 bona fide presentations per device. The application would then state "Fail" for the artefact presentations and "Success" for bona fide presentations.

On the iPhone 12 Pro, iBeta was not able to gain a liveness classification with a presentation attack of 150 times per species. With 150 PAs for each of the 6 species on the iPhone 12 Pro, the total number of attacks for the device was 900 and the Attack Presentation Classification Error Rate (APCER) was 0%. The Bona Fide Presentation Classification Error Rate (BPCER) was also calculated and may be found in the final report.

The KBTG Face Liveness (iOS) SDK v3.0.0 active liveness solution was tested by iBeta to the ISO 30107-3 Biometric Presentation Attack Detection Standards and was found to be in compliance with Level 1 on the iPhone 12 Pro.

Best regards,

R.B.t.

Ryan Borgstrom iBeta Quality Assurance Deputy Director of Biometrics (303) 627-1110 ext. 182 rborgstrom@ibeta.com